Message

From: Vater, Katherine [KVater@trcsolutions.com]

Sent: 12/10/2018 6:44:59 PM

To: Ramanauskas, Peter [ramanauskas.peter@epa.gov]

CC: Tony Koblinski [TKoblinski@madison-kipp.com]; michael.schmoller@wisconsin.gov; Beedle, Michael

[beedle.michael@epa.gov]

Subject: RE: EPA Comments for MKC

Hi Peter -

I'm checking in on the status of this, particularly in the event it would be issued by the end of the year, as that would be helpful for planning going forward.

Thanks, Katherine

608-826-3663

From: Ramanauskas, Peter < ramanauskas.peter@epa.gov>

Sent: Monday, September 24, 2018 3:01 PM **To:** Vater, Katherine <KVater@trcsolutions.com>

Cc: Tony Koblinski <TKoblinski@madison-kipp.com>; michael.schmoller@wisconsin.gov; Beedle, Michael

<beedle.michael@epa.gov>

Subject: RE: EPA Comments for MKC

Hello Katherine,

I do have a draft approval going through in-house review. Timing wise, I would hope to have it issued within a couple of months.

Please let me know if you have questions.

Thanks, Peter

From: Vater, Katherine [mailto:KVater@trcsolutions.com]

Sent: Monday, September 24, 2018 12:04 PM

To: Ramanauskas, Peter < ramanauskas.peter@epa.gov>

Cc: Tony Koblinski < TKoblinski@madison-kipp.com >; michael.schmoller@wisconsin.gov; Beedle, Michael

<beedle.michael@epa.gov>

Subject: RE: EPA Comments for MKC

Hi Peter -

Would you be able to provide us with an update about the Coordinated Approval process? Status, general timing, etc., so that we can keep track of any upcoming elements.

Thanks, Katherine

608-826-3663

From: Vater, Katherine

Sent: Thursday, July 19, 2018 12:27 PM

To: 'Ramanauskas, Peter' < ramanauskas.peter@epa.gov>

Cc: Tony Koblinski < TKoblinski@madison-kipp.com >; michael.schmoller@wisconsin.gov; Beedle, Michael

<beedle.michael@epa.gov>

Subject: RE: EPA Comments for MKC

Peter -

TRC will collect the one round of groundwater sampling for PCBs at wells MW-2S/D, MW-5D, and MW-6D during the October 2018 groundwater sampling event.

Please let us know what the next steps are in the Coordinated Approval process.

Thanks, Katherine

608-826-3663

From: Ramanauskas, Peter [mailto:ramanauskas.peter@epa.gov]

Sent: Friday, June 29, 2018 4:35 PM

To: Vater, Katherine < KVater@trcsolutions.com>

Cc: Tony Koblinski <TKoblinski@madison-kipp.com>; michael.schmoller@wisconsin.gov; Beedle, Michael

<beedle.michael@epa.gov>; Mark Sheppard <msheppard@madison-kipp.com>

Subject: RE: EPA Comments for MKC

Hello Katherine,

Thank you for the responses. We find Responses 1 and 3 acceptable.

With respect to Response #2 regarding the inclusion of additional groundwater monitoring wells, we accept the inclusion of MW-3D and MW-5S in the manner MKC notes. EPA requests MKC perform one additional round of groundwater sampling for PCB at wells MW-2S/D, MW-5D, and MW-6D. At MW-2S/D, per Figure D.2 in Appendix C of the February 19, 2018 On-Site PCB Monitoring and Interim Remedy Status Report it appears that there are residual PCB at levels above the Soil to Groundwater RCL in the area of those wells. For MW-5D and MW-6D, these will provide a recent check on conditions in the Lower Lone Rock since the start of the 2015 groundwater extraction system operation and help supplement the 2013 data.

Please let us know if you'd like to discuss.

Regards, Peter

From: Vater, Katherine [mailto:KVater@trcsolutions.com]

Sent: Wednesday, June 20, 2018 1:46 PM

To: Ramanauskas, Peter <ramanauskas.peter@epa.gov>

Cc: Tony Koblinski < TKoblinski@madison-kipp.com>; michael.schmoller@wisconsin.gov; Beedle, Michael

<beedle.michael@epa.gov>; Mark Sheppard <msheppard@madison-kipp.com>

Subject: RE: EPA Comments for MKC

Peter -

Below are responses to your three items identified in your 5/24/18 email, following up on our 5/22/18 conversation. Please let me know if you have any further questions, and if not, what the next steps are for coordinated approval.

- 1. The groundwater monitoring plan for PCBs will be amended as follows:
 - If total PCBs are detected in a semi-annual groundwater sample, then during the next semi-annual sampling event, the well will be sampled for the following:
 - Total PCBs (unfiltered)
 - If the preceding sample had turbidity >10 NTU: Dissolved PCBs (filtered using a 2.0 um filter), to assess for colloidal transport.
 - If the preceding sample had turbidity <10 NTU and a PCB concentration greater than the equilibrium solubility: dissolved organic carbon and VOCs so that the VOC data, to assess the potential for facilitated/co-solvency transport.
 - If total PCBs are detected, the total PCB concentration as well as any additional data will be reviewed to determine if PCBs are being transported by groundwater or dissolved in groundwater.
- 1. MKC is currently completing semi-annual PCB and VOC groundwater monitoring at the site, typically in April and October of each year.
 - We agree that MW-3D and MW-5S are reasonable additions to the PCB sampling program as they are potentially downgradient of the building and within the Upper Lone Rock Formation. These sample points will be added to the semi-annual sampling program, and will be sampled in October 2018, and for the four following years until the semi-annual monitoring program is reviewed to determine if the frequency of sampling can be reduced or discontinued at certain well locations.
 - MW-3D is currently sampled for VOCs in April and October, and MW-5S is currently sampled for VOCs in October. Both locations will be sampled for PCBs in April and October.
 - MW-2S and MW-2D, however, are located upgradient of the building and therefore not in a position to
 assess the potential for PCBs migrating from the below the building. MW-5D and MW-6D are screened
 within the Lower Lone Rock formation, and therefore, too deep to assess PCB migration unless
 detections in shallower wells suggest PCB migration in groundwater is occurring.
 - MW-2S is not currently sampled for VOCs. MW-2D, MW-5D, and MW-6D are currently sampled for VOCs in April and October.
- 2. On February 28, 2018, we transmitted the "Rain Garden Excavation and Restoration Work Plan" originally submitted to WDNR on December 9, 2016, which is the only TRC document about the rain garden investigation that is not on the BRRTS database. All other documents involving the rain garden are located on the BRRTS database (see the February 28, 2018 email for a full list of documents). Discussion of the roof investigation and the corresponding sample results can be found in the "Remedial Action Documentation Report Storm Sewer Investigation and Rain Garden Restoration", which was submitted to WDNR on July 11, 2017 (available on BRRTS). TRC has reviewed the available storm sewer videos and references their review in several of the reports since 2016.

Thanks, Katherine

608-826-3663

From: Ramanauskas, Peter [mailto:ramanauskas.peter@epa.gov]

Sent: Thursday, May 24, 2018 4:30 PM

To: Vater, Katherine < <u>KVater@trcsolutions.com</u>>

Cc: Tony Koblinski <TKoblinski@madison-kipp.com>; michael.schmoller@wisconsin.gov; Beedle, Michael

<beedle.michael@epa.gov>; Mark Sheppard <msheppard@madison-kipp.com>

Subject: RE: EPA Comments for MKC

Mark/Katherine,

As mentioned during our phone conversation on 5/22, I am providing you with a writeup of the comments raised during our discussion.

- 1) MKC noted the groundwater samples collected for PCB analysis will include total PCB as well as TSS and TDS if PCBs were detected to determine whether conditions at the time of sampling may be inadvertently causing resuspension and collection of PCB-impacted residual solids in the screened zone, potentially biasing the reported PCB concentration. If PCBs are detected, as part of this analysis and data presentation, MKC should include evaluation of the potential for colloidal and co-solvency transport based on the field data and the sample characteristics. Please see the approaches described in Appendix D of the EPA issue paper found here: https://www.epa.gov/sites/production/files/2015-09/documents/r4_issue_paper_for_pcbs_5-15-2013.pdf
- 2) MKC should include monitoring wells 2S/2D, 3D, 5S/5D, and 6D as part of the semi-annual PCB groundwater sampling events in order to provide:
 - a. sampling points surrounding the residual PCB area beneath the plant floor;
 - b. have locations in the apparent downgradient flow direction of the Upper and Lower Lone Rock formations as presented in Figures 4 and 5 of TRC's 4-26-18 comment response letter; and,
 - c. provide a more robust data set of groundwater PCB results

It is EPA's understanding that these wells are part of the quarterly PCE sampling events. The addition of PCB as an analytical parameter on a semi-annual frequency could occur.

3) We discussed the investigative sampling (e.g. roof sampling, video survey, etc.) conducted as part of the sewer/rain garden work and that MKC/TRC would provide or refer EPA to the reports/results from those investigations.

Thanks, Peter

From: Vater, Katherine [mailto:KVater@trcsolutions.com]

Sent: Thursday, April 26, 2018 4:13 PM

To: Ramanauskas, Peter < ramanauskas.peter@epa.gov >

Cc: Tony Koblinski < TKoblinski@madison-kipp.com >; Petrovski, David < petrovski.david@epa.gov >; michael.schmoller@wisconsin.gov; Beedle, Michael < beedle.michael@epa.gov >; Mark Sheppard

<msheppard@madison-kipp.com>
Subject: RE: EPA Comments for MKC

Peter -

Below is a link to a letter responding to your six questions. Due to the size of attachments, it is being sent as a download rather than as an attachment.

Please contact Mark and the group with any further questions.

MKC EPA Comments for Coordinated Approval Response Letter Please click the following link to download your files: https://Adhocftp.trcsolutions.com:443/AHT/DownloadLogin.aspx?package=728fSSgzhZppEg1mdb81qqYluD6TdHaGpdB683x%2f19vKMiIDkCSZuqEgtQNDQlRMTehr4fYptoXDWp4S9sZFfJkDmomncipn0JlV4%2fKuDNs%3d

Thanks, Katherine

> Katherine Vater, PE (WI) Project Manager

* This better control began to the explorer real research and the highest through the control resident	708 Heartland Trail, Suite 3000, Madison, WI 53717 T: 608-826-3663 C: 608-807-8968
	LinkedIn Twitter Blog www.trcsolutions.com

From: Ramanauskas, Peter [mailto:ramanauskas.peter@epa.gov]

Sent: Wednesday, April 11, 2018 8:55 AM

To: Mark Sheppard < msheppard@madison-kipp.com >

Cc: Vater, Katherine < KVater@trcsolutions.com; Tony Koblinski < TKoblinski@madison-kipp.com; Petrovski, David petrovski.david@epa.gov; michael.schmoller@wisconsin.gov; Beedle, Michael beedle.michael@epa.gov

Subject: RE: EPA Comments for MKC

Thank you, Mark. I will be out of the office for the first two weeks of May, so if you'd like to send me anything before that, please feel free.

Peter

From: Mark Sheppard [mailto:msheppard@madison-kipp.com]

Sent: Wednesday, April 11, 2018 8:52 AM

To: Ramanauskas, Peter < ramanauskas.peter@epa.gov>

Cc: Vater, Katherine < KVater@trcsolutions.com; Tony Koblinski < TKoblinski@madison-kipp.com; Petrovski, David petrovski.david@epa.gov; michael.schmoller@wisconsin.gov; Beedle, Michael beedle.michael@epa.gov

Subject: Re: EPA Comments for MKC

Peter,

Thanks for the comments, we are in receipt of them. Based on the level of detail on some of the items, it will take us at least a few weeks to get this pulled together. If that schedule doesn't meet your expectations, we can try to pull out some of the shorter responses and provide those sooner as part of a multiple part response.

Mark

On Wed, Apr 11, 2018 at 8:19 AM, Ramanauskas, Peter <ramanauskas.peter@epa.gov> wrote:

Hello Mark,

We've had the opportunity to review the information you have provided us and have the following comments:

- 1) Please provide information regarding the historical turbidity ranges you've seen in groundwater samples collected at the site.
- 2) Referring to groundwater samples to be collected for PCB, what specific size filter will be used for PCB groundwater sampling under your SOP (0.45 micron or other)?
 - 3. EPA agrees that there is no need for a standalone QAPP for a project of this scale. However, the same QA elements for the project need to be covered in the project documents. Include all of the SOPs, and any others

requested below, as addenda for reference in the 2-19-2018 On-Site PCB Monitoring and Interim Remedy Status Report which contains the Groundwater Monitoring Plan prepared for WDNR.

- a. The monitoring well sampling plan should include a table summarizing samples that are to be collected each semi-annual event; it currently reads like each well will be sampled once per event but this needs to be specified. Also, field duplicates and MS/MSDs should be included (one of each for 9 wells sampled) in the sample count.
- b. Referring to the groundwater sampling SOP, because the SOP has a table with low-flow criteria for many different state and EPA organizations, clarify in the work plan what pumps will be used and which stabilization criteria will be followed.
- c. Lab verification should be discussed either in an attached SOP or the sampling plan narrative as well as any data validation if validation is being conducted. EPA recommends at least a partial validation be done periodically considering this is an ongoing data collection event.
- d. Please include lab SOPs for TDS and TSS as well.
- e. The responsible person at Pace and TC on the QA side should be identified in the sampling plan.
- f. The plan mentioned project records will be available upon request. The timeframe they will be maintained and where they will be maintained should be specified or all records should be furnished to EPA when generated.
- g. Section 2.2.4 of the groundwater sampling SOP notes that the preference is to sample as soon as possible after purging dry should the well be purged dry. EPA prefers at least waiting 24 hours before doing so. The initial refill of the well can re-suspend sediments and off-gas VOCs. For representative groundwater samples there should be some time for the well column to equilibrate after purging dry.
- 4. The 10-13-2016 TRC Memorandum titled "Polychlorinated Biphenyls (PCBs) in Groundwater" discusses groundwater sampling efforts for PCB since 2012 and identifies wells sampled in 2013. How many rounds of PCB data do you have from these wells?
- 5. Please provide a description of the observed groundwater flow direction in the unconsolidated and upper lone rock formation over the years including pre and post-groundwater extraction well influence. Provide a description of the extent of the zone of influence of the groundwater extraction well on these formations relative to the locations of existing monitoring wells. Please include figures if available.
- 6. Referring to the 11-29-2017 Rain Garden Interim Investigation Report and Proposed Excavation Work Plan, it is EPA's understanding that you performed a video evaluation of the portions of the sewer extending from MH-3W to the Outfall and then at MH-5A to investigate the presence of a black corrugated plastic entering the manhole. Additionally, the report states that the terminus of an abandoned metal pipe was found to be entering MH-3W. Are there other laterals entering this sewer system which may pass through PCB contaminated areas (e.g. from beneath the facility)? Do you have sewer maps identifying any such system from beneath the facility?

Thanks,			
Peter			

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Office: 608-242-5207 Cell: 608-921-2293